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09/725,384	11/29/2000	James M. Ziobro	D/A0125Q XER 2 0404	6573

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EXAMINER
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HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
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2628

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01/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/725,384

Applicant(s)

ZIOBRO, JAMES M.

Examiner

Chante Harrison

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-9 is/are allowed.
- 6) ☒ Claim(s) 10-13, 15 and 19-23 is/are rejected.
- 7) ☒ Claim(s) 14 and 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to communications: Request for Reconsideration, filed on 10/23/07. This action is made **FINAL**.
2. Claims 4-23 are pending in the case. Claims 4, 10 and 21 are independent claims. No claims have been amended.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 10-13, 15 and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Akio Ito et al. US 5,612,793, 3/1997.

As per independent claim 10, Ito discloses an image analyzer operative to find and classify conflicting colors in the color image (i.e. image discriminating unit detects color components, which are accumulated in a histogram and classified based on a threshold of hue values) (col. 3, ll. 6-15, 50-54, 58-64; col. 3-4, ll. 65-5, col. 4, ll. 65-67); and a gray scale modulator operative to add spatial modulations to single colorant versions of only the conflicting colors within the single colorant version of the color image (col. 1, ll. 20-27; col. 2, ll. 48-54).

As per dependent claim 11, Ito discloses a histogram collector operative to classify pixels in the color image based on a characteristic that is also used to generate the single colorant version of the color image (i.e. histogram classifies based on hue values that are used to select the monochrome pattern) (col. 3-4, ll. 65-5; col. 4, ll. 65-67; col. 6, ll. 12-20, 31-35).

As per dependent claim 12, Ito discloses a conflicting color detector operative to examine the histogram and find pixels that are similar with respect to the characteristic that is used to generate the single colorant version of the image (i.e. evaluating histogram peaks to determine similarity) (col. 7, ll. 1-4, 15-20).

As per dependent claim 13, Ito discloses a color relationship discriminator operative to receive conflicting color classification information from the image analyzer and color image pixel information (i.e. color selection unit compares the hue value and the histogram data that is input) (col. 6, ll. 5-20), the color relationship discriminator operative to determine a relationship between the color image pixel and the conflicting color (i.e. determining the threshold value) (col. 4-5, ll. 65-5).

As per dependent claim 15, Ito discloses a spatial modulation generator operative to generate a gray scale spatial modulation for application to a single\_colorant version of a color (col. 2, ll. 50-55).

As per dependent claim 19, Ito discloses wherein the image processor further comprises an image receiver (i.e. digital copy machine) (col. 2, ll. 60-65).

As per dependent claim 20, Ito discloses wherein the image receiver further comprises a xerographic printer (i.e. digital copy machine) (col. 2, ll. 60-65).

As per independent claim 21, Ito discloses examining the image to find conflicting colors in the image (i.e. determining the brightness data; and using the brightness data and the histogram peaks in determining which pixels to apply a pattern) (col. 2-3, ll. 65-7 ; col. 3-4, ll. 65-5; col. 4, ll. 65-67; col. 6, ll. 12-20, 31-35); creating a single colorant version of the image (col. 2, ll. 52-54); and selectively spatially modulating a portion of the single colorant version of the image that is associated with one of the conflicting colors (col. 6, ll. 12-20, 29-35), thereby generating a modulated single colorant version of the image (col. 2, ll. 48-54); and at least one of storing and rendering the modulated single colorant version of the image (col. 2, ll. 55-65).

As per dependent claim 22, Ito discloses collecting a histogram of the multicolor image pixels wherein histogram bins tally and sort pixels based on at least one characteristic (i.e. histogram classifies based on hue values that are used to select the monochrome pattern) (col. 3-4, ll. 65-5; col. 4, ll. 65-67; col. 6, ll. 12-20, 31-35); and examining the histogram to find color peaks that are similar in the at least one characteristic (i.e.

evaluating histogram peaks to determine similarity) (col. 7, ll. 1-4, 15-20)..

As per dependent claim 23, Ito discloses examining the image to find color peaks in the image that have similar lightness ( $L^*$ ) (col. 3, ll. 5-15; col. 7, ll. 12-20).

### ***Allowable Subject Matter***

2. Claims 4-9 are allowed.
3. Claims 14 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

4. Applicant's arguments filed 10/23/07 have been fully considered but they are not persuasive.

Applicant argues (p. 3, 4, 6) Ito does not disclose an image analyzer that is operative to find and classify conflicting colors in a color image.

In response, Ito discloses a color discriminating unit that detects color components using a hue to signal (col. 3, ll. 6-13) to identify colors having similar hue (i.e. defined as brightness in the disclosure) and classifies the colors as it accumulates the color data in a histogram sorted based on a threshold of hue values (col. 3, ll. 45-

55). Thus, the color discriminating unit of Ito is an image analyzer as it detects/finds and classifies/sorts colors identified as being the same based on hue values.

With respect to claim 13, Applicant argues (p. 6) Ito does not disclose “a color relationship discriminator operative to receive conflicting color classification information...”

In response, Ito discloses a color selection unit that compares the hue value and the histogram data using the signals it receives from the hue detection unit that outputs values to form the histogram (col. 6, ll. 5-20). Thus, Ito discloses “a color relationship discriminator operative to receive conflicting color classification information...”

With regard to claim 23, Applicant argues (p. 7) Ito fails to disclose “...examining the image defined color peaks in the image that have similar lightness”.

In response, Ito discloses evaluating histogram peaks to determine similarity (col. 7, ll. 1-4, 15-20) by detecting the hue value, where the hue signal is used to discriminate colors based on vividness and brightness. Ito discloses the use of “hue” in his disclosure differs from the general meaning of the word (col. 3, ll. 7-15). Thus, Ito teaches “...examining the image defined color peaks in the image that have similar lightness”.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 571-272-7659. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chante Harrison  
Examiner  
Art Unit 2628

Ch  
January 2, 2008

